

REMARKS

Claim rejections under 35 U.S.C. § 103

In item 3, claims 8-10, 12-14, 17-24, 26-28 and 31-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenberg (6,429,846), in view of Heikkinen (6,073,036) and further in view of Fernando (6,193,152).

Specifically, claims 8, 22, and 36 are said to be obvious in light of figures 1-3 of Rosenberg, except that Rosenberg is asserted not to teach an overlay over the touchpad. However, Heikkinen is asserted to teach an overlay disposed on a touchpad keyboard, and Fernando is asserted to teach an audio feedback system that plays back a pre-recorded sound.

Applicant traverses the rejection of these claims in light of the cited prior art. None of the prior art references teaches a touchpad keyboard. None of these references teach an overlay. A touchpad keyboard is a touch-sensitive touchpad that has an overlay disposed directly over a touch-sensitive surface. The overlay has symbols disposed thereon. Touching one of the symbols causes a signal representing the symbol on the overlay to be generated by the touchpad.

Rosenberg is asserted to teach a touchpad keyboard. Applicant cannot find the teaching of a touchpad keyboard anywhere in Rosenberg. Rosenberg describes item 16 as a touchpad, not a touchpad keyboard. The operation of the touchpad 16 of Rosenberg is described explicitly. In column 4, lines 2-5, the patent states that "[w]hen the user operates the computer 10, the user may conveniently place a fingertip or other object on the touchpad 16 and move the fingertip to correspondingly move cursor 20 in

the graphical environment.” This section describes operation of a touchpad, not a touchpad keyboard. Likewise in column 4, lines 43-46, the patent states, “[t]ouchpad 16 preferably operates similarly to existing touchpads, where the speed of the fingertip on the touchpad correlates to the distance that the cursor is moved in the graphical environment.” Indeed, Rosenberg seems to be exclusively teaching and claiming the concept of a touchpad that provides haptic (touch-sensitive) feedback to a common and ordinary touchpad.

In contrast, the present invention teaches an overlay disposed on the surface of the touchpad, wherein the overlay defines regions that when touched by a user cause a signal to be generated by the touchpad that corresponds to the region touched. Rosenberg does not teach anything even similar to a touchpad keyboard, so it can be concluded that Rosenberg teaches away from the present invention.

Heikkinen is also alleged to teach a touchpad keyboard as item 23 in Figure 1B. Applicant respectfully traverses any suggestion that item 23 is a touchpad keyboard as claimed in the present invention. In Heikkinen, a touch-sensitive display is a display screen having a touch-sensitive surface (a touchpad) disposed thereon. This combination of display and touchpad teaches away from the present invention of touchpad and overlay for several reasons.

First, Heikkinen teaches that there is not enough room to display all of the desired symbols on a display screen of a device such as a portable telephone. Thus, if the display is crowded with numerous symbols, there is not enough space for a fingertip to always touch the desired symbol. Therefore, Heikkinen teaches magnifying the area under a fingertip if the fingertip is on a display, or magnifying the area corresponding to

a fingertip location on a touchpad. But Heikkinen has assumed that there is insufficient space on the touchpad for a fingertip to touch the desired symbol without this magnification scheme. This teaching is absolutely contrary to the basis of the present invention, wherein all desired symbols are assumed to be present on the overlay, and all the symbols can be accurately touched by a fingertip without any scheme of magnification of the area under the user's finger.

Second, the complication of adding a display and a separate touchpad also teaches away from the simplicity of the present invention.

Third, if a separate touchpad is used in combination with a display, the user must be looking at the display to determine which symbol the user is selecting. This concept teaches away from the advantages of the present invention because the user is only required to look at the touchpad to determine which symbol is being selected. It is not necessary to look away from the touchpad because of the audible feedback that the user receives when a symbol has been selected.

Fourth, Heikkinen is asserted by the Office Action to teach "an overlay disposed on the surface of the touchpad keyboard..." as explained in column 9, line 64 to column 10, line 5.

Applicant respectfully traverses this assertion. Display of a "virtual finger" on the display is not the same thing as touching an overlay that is directly on a touchpad. As just explained above, the user has to watch the display to see where the cursor or "virtual finger" is being moved while actually moving over a blank touchpad surface. In contrast, the present invention teaches an overlay on the touchpad itself, such that the user looks at the touchpad to see which symbol or character the finger is going to touch. Thus,

there is no overlay, and operating the invention of Heikkinen teaches away from the present invention.

Next, Fernando is asserted to teach an audio feedback system that "causes a pre-recorded sound to be made audible whenever any keys of the plurality of keys are touched on touchpad keyboard...."

Applicant respectfully traverses any assertion that pre-recorded audible feedback is being taught by Fernando. In the cited passages of Fernando, it explicitly teaches that "[c]ircuitry and techniques directed to computer-generation of spoken words corresponding to digital entries are well known in the art..." The present invention teaches and claims that the audible feedback is a pre-recorded voice, not an artificially generated voice. This distinction has been made because of the clarity of a pre-recorded voice as opposed to the generally much less clearer computer-generated imitations that are being explicitly avoided by the present invention.

Regarding claims 9 and 23, none of the references teach the pre-recorded voice.

Regarding claims 10 and 24, the Office Action simply states that "it would have been obvious to obtain a mechanical scrolling wheel disposed in a side of [a] touchpad, such that a user can rotate the mechanical wheel..." Applicant has no way to respond to this assertion because there are no grounds stated for why it would have been obvious. This is not a feature cited in any of the references; therefore these references do not teach or suggest the claimed invention, and cannot be imputed to be obvious.

Regarding claims 12 and 26, it is asserted that Rosenberg makes a communications cable for remote operation obvious.

Applicant respectfully traverses the rejection of the claims. As explained in

response to the rejection of claims 8, 22 and 36, the combination of references fails to teach or suggest a touchpad keyboard with an overlay. Accordingly, these references do not make it any more obvious to include a communications cable with the claimed invention.

Regarding claims 13 and 27, it is asserted that Rosenberg teaches that the portable electronic appliance is a PDA.

Applicant respectfully traverses the rejection of these claims for the same reasons given in support of claims 8, 22, and 36.

Regarding claims 14 and 28, it is asserted that Rosenberg makes a wire communications port obvious.

Applicant respectfully traverses the rejection of these claims for the same reasons given in support of claims 8, 22, and 36.

Regarding claims 17 and 31, it is asserted that Rosenberg teaches the touchpad is a finger or stylus responsive device.

Applicant respectfully traverses the rejection of these claims for the same reasons given in support of claims 8, 22, and 36.

Regarding claims 18 and 32, it is asserted that Rosenberg teaches that the plurality of keys include at least a first dedicated key that facilitates navigation in web pages as described in column 7, lines 12-20.

The passage above is typical of the teaching of Rosenberg, wherein a touchpad is being used to manipulate a cursor on a display, and wherein the cursor is being used to select a button on the display. However, this is not what is being claimed. The present invention claims a dedicated key on the touchpad itself, wherein the key is defined by the

overlay, and touching the key on the overlay causes the touchpad to generate a signal that is a command to perform a web navigation function. Thus, Rosenberg teaches away from the present invention because it requires a display to be visible in order for the function to be performed. No such requirement is made by the present invention. Accordingly, Applicant respectfully traverses the rejection of claims 18 and 32.

Regarding claims 19 and 33, it is asserted that Rosenberg also teaches at least a second dedicated key that is programmable to actuate a computer program in column 6, lines 7-23.

Applicant respectfully traverses the rejection of claims 19 and 33. The text of Rosenberg described above refers to a force feedback feature wherein a program can send signals to the touchpad to actuate vibrational motors and the like. This is not the feature being claimed. The present invention teaches and claims a button on the touchpad keyboard that is linked to a program running on the portable electronic appliance. The touchpad keyboard is sending a command to a program. There is no signal being sent from the program to the touchpad keyboard.

Regarding claims 20 and 34, it is asserted that Rosenberg teaches a mode switch that enables the touchpad keyboard to switch functioning between a touchpad keyboard and as a cursor control device.

Applicant respectfully traverses the rejection of claims 20 and 34 because nothing in the teaching to Rosenberg has been seen to teach the functions of a touchpad keyboard, but rather only as a typical touchpad.

Regarding claims 21 and 35, it is asserted that Rosenberg teaches a second touchpad that is dedicated to web page navigation.

Applicant respectfully traverses the rejection of claims 21 and 35. The cited passages of col. 13, lines 41-54 and col. 14, lines 54-65, are all typical of the prior art, wherein a cursor is moved over a region of a display screen in order to actuate a function. This is not being claimed by the present invention because no cursor manipulation or even a display is needed. The claimed function is a dedicated key on the touchpad keyboard, not on a display screen.

Regarding claim 37, it is asserted that the combination of all cited references teaches a microphone for recording audio data for transmission via a network, and for live transmission of audio data in col. 4, lines 3-18 of Heikkinen.

Applicant respectfully traverses the rejection of claim 37. Applicant has amended claim 37 to more specifically define the scope of the invention. Claim 37 defines the network as a computer network, as opposed to a telephone network that is described in Heikkinen. The telephone network is designed for voice communication, whereas a computer network does not transmit analog sounds signals, but only digitally encoded representations thereof. Furthermore, the combination of references fails to make the claim obvious in light of the discussion above in defense of claims 8, 22, and 36.

In item 4, claims 11 and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rosenberg, Heikkinen and Martinelli.

Applicant respectfully traverses the rejection of claims 11 and 25. The combination of references fails to make the claim obvious in light of the discussion above in defense of claims 8, 22, and 36.

In item 5, claims 15, 16, 29 and 30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rosenberg, Heikkinen, Fernando and Holehan.

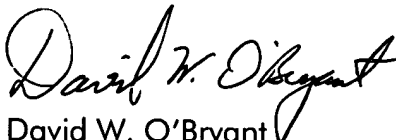
Applicant respectfully traverses the rejection of claims 15, 16, 29 and 30. The combination of references fails to make the claim obvious in light of the discussion above in defense of claims 8, 22, and 36.

In light of the statements above, Applicant respectfully requests issuance of claims 8 to 37. If any impediment to the allowance of these claims remains after entry of this Amendment, and such impediment could be alleviated during a telephone interview, the examiner is invited to call David W. O'Bryant at (801) 478-0071 so that such matters may be resolved as expeditiously as possible.

The Commissioner is hereby authorized to charge any additional fee or to credit any overpayment in connection with this Amendment to Deposit Account No. 50-0881.

DATED this 2nd day of October, 2003.

Respectfully submitted,



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